

CLAIMS

1. A polymeric material used in combination with a tissue adhesive, which comprises carbon or silicon as a constitutional element, and at least a portion of the surface of which is modified by ion bombardment.
2. The polymeric material according to claim 1 wherein the tissue adhesive is fibrin glue.
3. The polymeric material according to claim 1 or 2 wherein the polymeric material comprising carbon or silicon as a constitutional element is expanded polytetra-fluoroethylene (ePTFE), polylactic acid, or polyglactin.
4. The polymeric material according to any of claims 1 to 3 wherein the modification by ion bombardment is carried out by irradiation with ions at a dose (ϕ) of $1 \times 10^{12} \leq \phi \leq 1 \times 10^{16}$ ions/cm².
5. The polymeric material according to any of claims 1 to 4 which is used for an artificial dura mater, an artificial blood vessel, a patch used for the heart or blood vessel, or a surgical suture.
6. A method for producing the polymeric material of any of claims 1 to 5, which is characterized in that at least a portion of the surface of the polymeric material comprising carbon or silicon as a constitutional element is irradiated with ions at a dose (ϕ) of $1 \times 10^{12} \leq \phi \leq 1 \times 10^{16}$ ions/cm².
7. A method for improving the affinity of a polymeric material comprising carbon or silicon as a constitutional element with a tissue adhesive, which is characterized in that at least a portion of the surface of the polymeric material is irradiated with ions at a dose (ϕ) of $1 \times 10^{12} \leq \phi \leq 1 \times 10^{16}$ ions/cm².